Chapter Six

Intermodal Inventory and Other Issues

Public Transit
Air Transportation
Rail Transportation
Water and Port Transportation
Regional Intermodal Study
Non-Motorized Transportation
Intelligent Transportation Systems (ITS)

Intermodal Inventory

The Bay City Urban Area is currently served by many forms of transportation. This provides accessibility which extends to connection both inside and outside the Metropolitan Area Boundary. The state trunkline highway network including two freeways and five state highways, the county and municipal arterials and collectors have been discussed previously in this report.

Although the street and highway system is a very high priority with transportation planners, so are the other modes of transportation in the Bay City area. We are truly a multi-modal community as described on the following pages.

Public Transit

Existing Conditions

The Bay Metropolitan Transportation Authority (BMTA), organized under Public Act 196 of 1986, as amended, is the sole publicly owned transportation system operating in Bay County. The BMTA is an independent local authority governed by a nine member board of directors. Board Members are appointed by the Bay County Board of Commissioners. In fiscal year 2011, BMTA carried 600,000 riders and traveled 1.6 million miles. In addition to BMTA services, four public school districts, a few private carriers, and numerous social service agencies provide rides for students and agency clients in the county. BMTA contracts with a private carrier to supplement the passenger capacity for its paratransit, demand response service.

BMTA Services

In FY 2011, the BMTA operated 47 buses and 16 vans in fixed route and demand response service. Ten traditional fixed routes operate in the Bay City area and serve non-urban locations such as Pinconning, Linwood, Kawkawlin, Auburn, and University Center (Delta College and Saginaw Valley State University). The fixed routes also allow for connections to public transit services in Arenac, Midland, and Saginaw Counties. Flexed routes are operated countywide throughout the year. These public routes primarily transport disabled individuals to and from work sites and to educational facilities. BMTA fixed and flexed route services are operated between the hours of 6:00 am and 6:30 pm weekdays and 9:00 am and 6:30 pm on Saturday. The base fare for the fixed and flexed route services is $1.00. Seniors and the disabled (including those with a valid Medicare card) pay $0.50 and full-time students of any age pay $0.75. Transfers are free. A countywide demand response system (DART) provides curb-to-curb rides for seniors and disabled residents. DART service is operated

between the hours of 6:00 am and 6:30 pm weekdays and 9:00 am and 6:30 pm on Saturday. The demand response fare is $1.50 for all rides.

Future Conditions

BMTA is currently engaged in an effort to identify the types of services that will need to operate in the community 5 to 10 years from today in order to determine what sort of capital investment may be needed to support the service and whether the current revenue stream will be sufficient to operate at the anticipated level. The following factors are being examined:

Demographic make-up of the current service area population and projections of population 10 years from now - Because of a network of quality support services in the community, a relatively high proportion of the population is made of seniors and individuals with disabilities. This segment of the population will continue to grow. The need for more demand-response transit service is likely. This is a much more expensive service and may require the reduction or elimination of other transit services currently being provided. The Bay Metro service area covers the entire county. About 85% of the county lies outside the urbanized area and about 33% of the population lives outside the urbanized area, making demand-response service even more difficult and expensive. Unless the efficiency of the current demand-response system can be significantly improved, the cost to run an expanded version of that system may be unsupportable. Gradually diminishing, and ultimately discontinuing, some of the current transit services offered, in order to expand the demand-response system must be handled very carefully since the transit authority receives a larger share of its operating revenues (about 27 %) from local property tax that must be renewed every 5 years.

Fixed route efficiency, effectiveness and necessity - The increasing demand on the demand-response service requires a constant evaluation of the fixed route service. The fixed route service is a much less expensive service to operate in terms of cost per passenger. An improvement in the efficiency and effectiveness of the fixed route service would allow for a shift of resources toward the demand-response service and draw passengers from the demand-response service to the fixed route service. Questions which must be answered regarding the effectiveness of the fixed routes service are; is this service properly marketed, is the system easy to learn, do the routes stop where needed, do the buses give the impression of being clean and safe, do the routes operate early or late enough, and do the routes operate with enough frequency. Centers of employment, education facilities, shopping centers, governmental service centers, medical facilities, and residential areas generate the transit passengers. These “stakeholders” shift geographically and in relevance to the community over time; if the fixed route service does not adapt to the community’s needs, the service will lose its relevance. The evaluation of the fixed route service could result in additional buses on existing routes, schedule adjustments, shifting of routes, elimination of routes, or a combination of all of the above.

Regionalization – BMTA serves Bay County only, although it does make regular connections with the

transit systems in the adjacent counties of Saginaw, Midland and Arenac. It is possible that in the future, the three urban areas in the region, Bay City, Saginaw, and Midland, will be consolidated into a single urbanized area. The single urbanized area would overlap the service area of four (BMTA, STARS, Midland City, Midland County) local transit systems and consolidate those systems' federal funding sources into a single account to be shared based on local agreements. In anticipation of these conditions, efforts should begin to examine the possibility of either consolidating the systems or developing a coordination plan to make travel between the communities more seamless and regional; the same fares, transfer procedure, schedule formatting, etc. Without the effort to consolidate or coordinate, the four systems may find themselves in a position where the State mandates a consolidation at which point it would be too late to transition at an orderly, locally-managed pace. There are two main barriers to the near-term consolidation or coordination efforts; political, the sense of surrendering local authority of the transit system; and differences in the systems' structure and funding. One system is funded with city general funds; another is funded with a city-only property tax. One is funded with a countywide property tax controlled by the transit system, and one is funded with a countywide property tax controlled by the county government. Two of the systems are strictly demand-response and two of the systems are fixed route and demand-response.

Transportation Enhancement Activities

Transit service which reaches out to the non-transit dependant population becomes much more of a community asset. BMTA will seek to improve coordination with non-motorized transportation modes. Efforts will include improved bicycle racks/storage at the central bus station and other bus stop locations, adding bus-mounted bicycle racks, and designating bus stops at foot and bicycle trailheads. BMTA will also look at the possibility of designated stops at park-and-ride lots and approaching local stakeholder to establish a steady stream of park-and-ride lot users and transit passengers.

Transit Financing

BMTA's FY 2011 operating expenses were approximately $8.1 million. Fares covered 9% of operating expenses. Other sources of revenue include the local property tax levy (27%), State of Michigan assistance (37%), federal assistance (26%) and miscellaneous (1%). In 2009, the voters of Bay County approved a county-wide .75 mill transportation tax renewal good through the year 2015. This strong local support has enabled the Authority to operate smoothly in spite of decreasing support from the state and federal governments. The State of Michigan is still an important player in terms of operating support, presently providing about 37 percent of operating revenues as well as the 20 percent local match for most capital improvements. The role of the Federal Transit Administration has been mostly in the area of capital acquisitions, providing 80 percent of the funds for most major items (buses, building improvements, and maintenance equipment).

Financial Planning

BMTA is projecting that current sources of revenue, assuming funding levels continue without being supplemented, will not sustain the current level of service. BMTA will have to reduce the level of service or find additional funding sources. If public demand dictates maintaining or improving service, it would be possible to request an increase in the local millage rate. Having received millage funds since 1981, the staff has enough data to project tax revenues likely to result in changes in the tax rate. While many revenue sources are beyond the control of the local transit system, expenses are under local control. How much service is operated, how many persons are employed, how much they are paid, and what type of benefits they receive, are examples of decisions made locally. BMTA must continue to project forward as any reaction to concerns about balancing the operating budget, generally, will not have an impact for at least a year. Projecting forward and taking action before a crisis allows for small measures to be implemented which may go largely un-noticed, instead of making large cuts which would only serve to antagonize loyal BMTA passengers.

Plan Recommendation

1. Replace aging bus fleet. Bus replacements are at a significant cost and almost exclusively dependant on federal and State discretionary funds. The availability of these funds is unreliable and inconsistent. BMTA must make a proactive effort in its grant preparation and be more aggressive in its approach in making FTA and MDOT aware of our community's need for safe, economical buses.

2. Improve coordination between demand-response and fixed route operations.

3. Improve coordination with transit providers in Saginaw, Midland, and Arenac counties with the goal of providing/improving regional transportation service between Bay City and these areas.

4. Adapt to the financial environment based on the projection of reduced operating and capital assistance from federal and state funding sources.

Air Transportation

The Bay City Urban Area is served by two airports, MBS International Airport and the City of Bay City owned James Clements Airport on (M-13) River Road. MBS is a class D-IV airport and James Clement is a class B-II airport.

The Michigan Airport System Plan (MASP 2008) documents the planning process that identifies the

aviation role of public use airports in Michigan through the year 2030. ***MASP 2008*** presents the results of a system planning process that has been aligned with the goals and objectives of MDOT's MI Transportation Plan. The ***MASP 2008*** supports programming decisions and is useful in evaluating programming actions related to airport system and airport facility deficiencies.

Among the key functions of the ***MASP 2008*** is, from a state perspective, identifying those airports that can best respond to state goals and objectives. To this end, all airports, following a rigorous analytical process, were assigned to one of three tiers based on their contribution in each of the State's goals. Tier 1 airports respond to critical/essential state airport system goals. These airports should be developed to their full and appropriate level. Tier 2 airports complement the essential/critical state airport system and/or respond to local community needs. Focus at these airports should be on maintaining infrastructure with a lesser emphasis on facility expansion. Tier 3 airports duplicate services provided by other airports and/or respond to specific needs of individuals and/or small businesses. A series of system goals were identified as an outcome of an issue identification process related to the MDOT's MI Transportation Plan. The system goals identified were...

- Airports should serve significant population centers
- Airports should serve significant business centers
- Airports should serve significant tourism/convention centers
- Airports should provide access to the general population
- Airports should provide adequate land area coverage
- Airports should provide adequate regional capacity, and
- Airports should serve seasonally isolated areas.

For each goal, with the exception of serving seasonal isolated areas, MBS International Airport was classified as Tier 1. James Clement Airport was classified as a Tier 1 airport for the goal of "provide adequate regional capacity," and a Tier 3 airport for all other goals.

MBS International Airport

MBS International Airport was conceived in the 1930's to serve the entire Saginaw Valley and surrounding communities. The airport is owned by the cities of Midland, Saginaw and the County of Bay. It is centrally located between these three communities in the northeastern portion of Saginaw County. The airport was, prior to 1994, known as Tri-City International Airport. The airport is operated by the MBS International Airport Commission.

The airport has two main runways with lengths of 8002 and 6400 feet. Both runways are 150 feet wide. The Instrument Landing System is the Category One type common at Michigan airports outside of Detroit Metro. It is adequate for most weather conditions.

Michigan Department of Transportation- Total Scheduled Passengers								
Community	Airport Name	2011	2010	2009	2008	2007	2006	% Change 2006-2011
Detroit	Metro Wayne	32,406,159	32,377,064	31,143,262	34,707,368	31,395,803	35,091,309	-7.65%
Grand Rapids	G Ford Intl	2,275,332	2,185,924	1,771,465	1,809,445	1,990,896	2,015,846	12.87%
Flint	Bishop Intl	938,986	986,505	975,758	1,049,863	1,071,238	1,061,389	-11.53%
Lansing	Capital City	358,307	257,350	265,967	429,639	497,824	557,417	-35.72%
Traverse City	Cherry Capital	352,250	343,679	357,955	371,444	406,537	415,547	-15.23%
Kalamazoo/BCreek	Intl	303,497	276,276	276,856	331,167	378,989	408,068	-25.63%
Mid/Bay City/Sag	**M B S Intl**	**273,789**	**262,069**	**267,436**	**304,263**	**348,281**	**382,140**	-28.35%
Marquette	Sawyer Intl	104,985	114,295	107,353	112,072	133,681	132,169	-20.57%
Houghton/Hancock	Co. Mem.	46,642	42,652	50,340	51,187	54,081	57,789	-19.29%
Pellston	Emmet Co Reg	45,422	44,179	46,219	50,263	58,902	64,719	-29.82%
Sault Ste Marie	Chip Co Intl	37,129	28,189	25,945	25,698	26,860	26,428	40.49%
Muskegon	County	28,371	26,414	32,009	55,972	63,214	66,345	-57.24%
Escanaba	Delta County	26,555	17,810	13,779	10,277	17,216	18,485	43.66%
I. Mtn/Kingsford	Ford	23,971	14,916	11,322	8,042	12,927	15,485	54.80%
Alpena	Alpena Co Rg	22,747	16,818	14,876	14,608	15,288	15,625	45.58%
Manistee	Co Blacker	21,992	6,760	5,472	4,044	6,004	5,551	296.18%
Ironwood	Gogebic Co	6,683	1,445	2,290	2,905	5,826	6,622	0.92%

MBS has experienced a 54% decline in scheduled passengers since 1998 when the airport peaked with 589,798 down to only 273,789 for 2011, a slight uptick from 2010, according to the Michigan Department of Transportation Measure of Michigan Air Demand. The decline in passengers can be attributed to various factors include; the post 9-11 period, the economic decline, the deterioration of aging MBS terminal and/or the growth of Flint's Bishop International Airport. This ranks MBS the 7th busiest airport in terms of passengers in Michigan, behind Kalamazoo/Battle Creek and ahead of Sawyer Airport in Marquette. Delta Air Lines and United Airlines are currently operating daily scheduled flights in and out of MBS to Chicago, Detroit, and Minneapolis. Added in 2011, Allegiant Airlines added twice weekly flights to Orlando, Florida.

In 2001 MBS added daily charter service flights, which has carried nearly 30,013 passengers in 2010. These passengers are considered Supplemental Passengers; those traveling on charter or other for hire air services, and are not included among scheduled passengers. The great majority of these supplemental passengers are part of the Dow Chemical Company, headquartered in Midland, which contract a daily charter flights out of MBS to their other major operations centers in Texas and Pennsylvania.

Air cargo activity in 2010 consisted of 124,123, down from 467,711 pounds in 2006. This decrease is seen through much of the state as well as the decline of GM shipments from the Great Lakes Bay Region. MBS is served by Fed Ex which has a terminal just outside the airport property.

In 2008, the MBS International Airport Commission approved the design for the new terminal. The cost to build the terminal is approximately $48 million. This new terminal should meet the aerial needs for the region for the next 40-50 years and will improve the efficiency for air transportation for both the passengers and carriers. With this new terminal, improvement may also be on the way for Garfield Road from US-10 to MBS, the main access road to the new terminal from the north. Currently, the road is a two lane, rural route and is operating under capacity. There are several safety issues along the route including large drainage ditches and during the winter months, wind driven snow and the mix of jurisdictional snow removal timing becomes an issue. This corridor will likely be studied in the future for possibly airport related development as the new terminal comes on line. BCATS would be involved in any related study, as while MBS is outside of BCATS, MBS provides an integral transportation component to the BCATS urbanized area.

James Clements

The city of Bay City owned James Clements Airport was originally founded in 1930. Today the airport consists of two (2) asphalt runways with lengths of 2,619 ft and 3,800 ft., and three (3) seaplane runways on the Saginaw River two (2) of which are 3,500 ft. in length and the other at 2,600 ft. In Michigan, there are only seven (7) seaplane bases and only two that are available for public use, one being James Clements.

In a recently completed their ten-year capital improvement plan for James Clements Airport (2012-2021), nearly $3.8 million in capital improvements are planned. These include construction of new hangers, runway repairs, improvements to maintain security at the airport entrances and property lines, installation of a flock dock for seaplanes at the new seaplane ramp on the Saginaw River, and rehabilitation of the historic hanger.

Plan Recommendations:

1. Promote the new terminal construction plans at MBS to increase the market share of air transportation.
2. Encourage the continued operation of James Clement Airport as long as these operations are efficient and feasible.
3. Continue development of new hangers, taxi-streets, aprons and auto parking facilities.
4. Design and development of James Clements Airport as a Seaplane Base in addition to the existing facilities.
5. Provide for adequate access and connectivity between air and other modes of transportation.

Rail Transportation

While Michigan's rail miles have decreased over the past decade, the number of carloads has grown by almost 11 percent. This has made private carriers much more stable than in previous decades and has enabled them to keep mainline railroads in better condition, at the expense of abandonment of light density lines. The abandonment of certain routes has left some areas without service or with rail links dependent on maintenance subsidies.

Twenty-one percent of Michigan's rail miles are state owned. The state owns 872 miles of right-of-way, of which 650 are in use, with the balance preserved for possible future use. Maintenance is partially at state expense. Six private carriers under contract to the state operate state owned routes.

Three rail lines provide service to the BCATS area. Scheduling can vary but generally, the Huron & Eastern Railway operated by RailAmerica Inc. runs four trains daily on their lines, Saginaw Bay Southern operated by Lake State Railway runs one train twice daily and another three trains once a week, and the Lake State Railway runs two trains through the BCATS area. The majority of commodities shipped in, out, or through the BCATS region include chemical products, coal, stone, and other bulk material. None of the rail lines in the study area provide passenger service.

The Federal Railroad Administration wants to remove 25 percent of the existing highway grade crossings. Most should be closed permanently. Some should be separated at grade. These measures would substantially improve rail safety, while allowing operating speeds to be increased, adding to the quality of service and the capacity of routes.

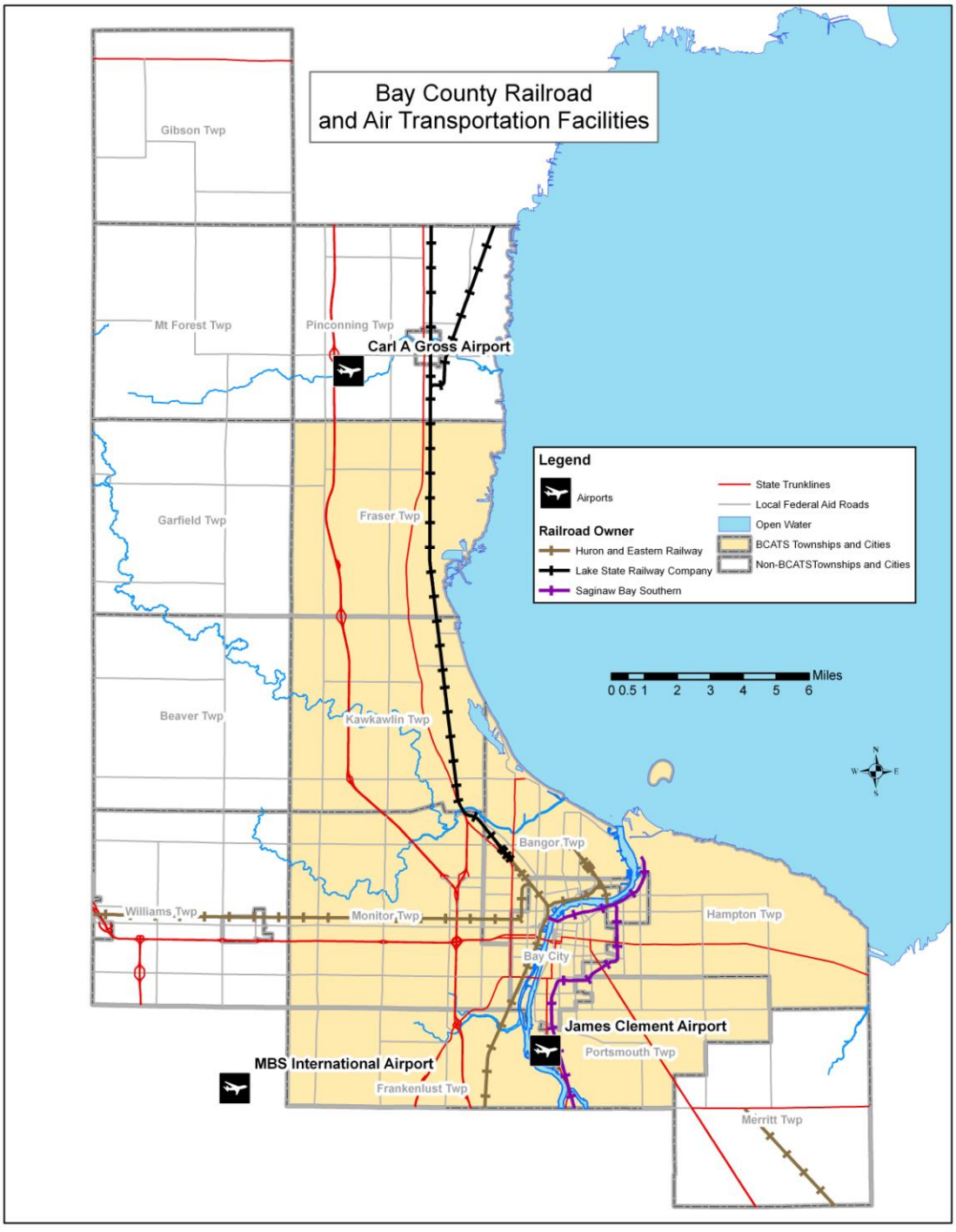
A coordinated effort to improve rail crossings by local, state and federal governments and by private business interests would enhance efforts to maximize Michigan's ability to compete for international trade.

Abandonment of railroad service is allowed by federal law which permits a railroad carrier to end its obligation to provide service over a particular line. In the Bay City area, local officials have encouraged the reuse of abandoned railway lines as non-motorized railtrails. This effort has been very successful and is scheduled to continue.

In summary, the railroad's decline over the last two decades is evidenced in the trend toward the use of other modes for the movement of goods, changes in the type of commodities being shipped, and consolidation and diversification of rail systems. Yet, many of the State's leading manufacturing, agricultural and extraction industries still rely on the railroad as a means of efficient and economical shipment of bulk freight. Continued operation of smaller railroads will require a restructuring of their systems in order to meet the demands of a changing market and intermodal competition.

Plan Recommendations:

1. Relocate rights-of-ways that will allow a blend of safety improvements, consolidation of rail traffic on fewer lines and increased operating efficiencies.
2. Continue upgrading of highway/ rail crossings.
3. Remove unused or abandoned rail lines.
4. Promote intermodal connection and access between rail and other modes of transportation.
5. Continue development and expansion of the existing railtrail system.
6. Increase security/safety of rail cars caring hazardous material through the BCATS region.


Bay County Railroad
and Air Transportation Facilities
Gibson Twp
Mt Forest Twp
Pinconning Twp
Carl A Gross Airport
Garfield Twp
Fraser Twp
Beaver Twp
Kawkawlin Twp
Bangor Twp
Williams Twp
Monitor Twp
Hampton Twp
Bay City
James Clement Airport
Portsmouth Twp
MBS International Airport
Frankenlust Twp
Merritt Twp
Legend
Airports
Railroad Owner
Huron and Eastern Railway
Lake State Railway Company
Saginaw Bay Southern
State Trunklines
Local Federal Aid Roads
Open Water
BCATS Townships and Cities
Non-BCATSTownships and Cities
Miles
0 0.5 1 2 3 4 5 6
N
W
E
S

Water and Port Transportation

The number of commercial ports in Michigan remained at approximately 40 between 2000 and 2009. Michigan's important water borne commodities are stone, iron ore, coal, cement, salt petroleum, and chemicals. Tonnage handled ranged from a low of 52 million tons in 1982 to a high of 91 million tons in 1989. Traffic volumes are highly dependent on the steel and construction industries.

In 1986, federal legislation fundamentally changed the funding of navigation projects. Waterway users now pay the entire cost of maintaining navigation channels through a harbor tax and trust-fund mechanism. Non-federal contributions are now required for several types of navigation projects: new construction, navigation studies, and disposal of dredged material.

The Saginaw River is one of Michigan's most important commercial harbors. The port ranks about fifth in the value of commodities being shipped from Michigan ports. It ranks seventh in total tonnages and second in the number of terminals and diversity of cargoes.

Approximately 20 marine terminals are located along the river from Saginaw to the mouth of the river. These terminals handled approximately three million tons of cargo in 2009 and 320 ships in 2006. Major commodities include limestone, sand, coal, salt, fertilizers, cement, petroleum and chemicals. These products serve the manufacturing, agricultural, and construction industries throughout a large portion of the Lower Peninsula. Most water borne commerce on the Saginaw River consists of U.S. domestic and Canadian trades. A port study conducted by BCATS in 1984 concluded that the future for the port would be in terms of cargo handling.

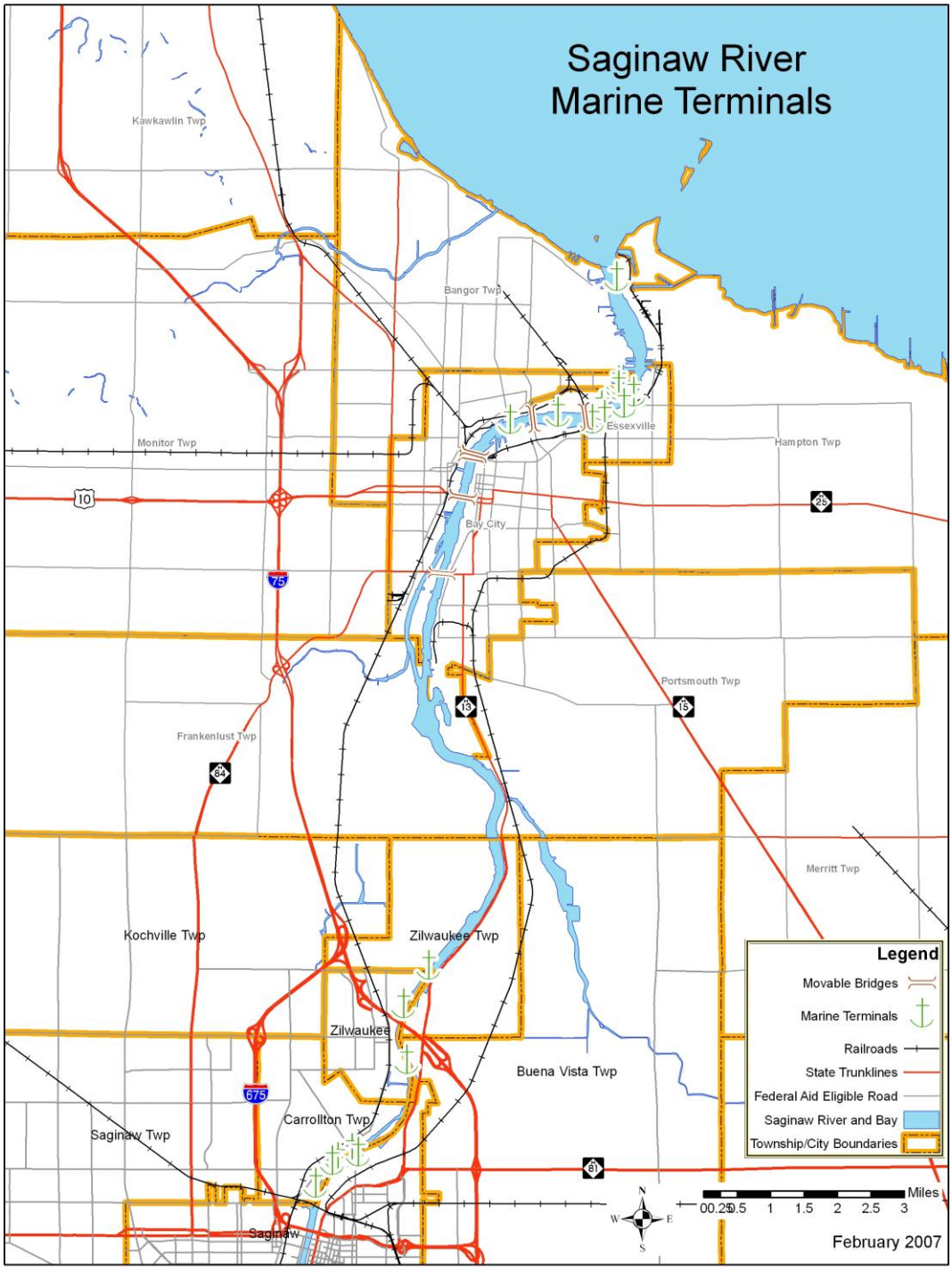
In addition to shipping, Bay County's extensive river system is heavily utilized for recreational boating and fishing.

Plan Recommendations:

1. Promote the retention and upgrading of port facilities.

2. Promote intermodal connectivity and access between the port and other forms of transportation, specifically rail and trucking.

3. Assist in finding ways to keep up the maintenance on the river channel to keep shipping on the river.


Saginaw River
Marine Terminals
Kawkawlin Twp
Bangor Twp
Monitor Twp
Essexville
Hampton Twp
Bay City
Portsmouth Twp
Frankenlust Twp
Merritt Twp
Kochville Twp
Zilwaukee Twp
Zilwaukee
Buena Vista Twp
Carrollton Twp
Saginaw Twp
Saginaw
Legend
Movable Bridges
Marine Terminals
Railroads
State Trunklines
Federal Aid Eligible Road
Saginaw River and Bay
Township/City Boundaries
Miles
0 0.25 0.5 1 1.5 2 2.5 3
N
W
E
S
February 2007

Regional Intermodal Study

The Genesee County Metropolitan Planning Commission (MPO for the Flint area), in cooperation with its partners, the Flint Area Chamber of Commerce and the Michigan Department of Transportation, conducted the I-69/I-75 Intermodal Transportation Study to determine how the region of Genesee, Lapeer, Saginaw, St. Clair, and Shiawassee counties can capitalize on its location at a significant crossroads of the national and international freight network. By doing so, it is expected that economic conditions and the quality of life in the region will improve.

The study area is served by major transportation facilities such as I-69, I-75, U.S. 23, and a number of state highways; the Blue Water Bridge and double-stacked rail tunnel in Port Huron which link the United States and Canada; deep water ports in Saginaw (the study incorporates the deep water ports in Bay County), and Port Huron; airports in Saginaw County (MBS) and Flint (Bishop); and, the Canadian Nation (CN) and CSX rail lines. The current population of the five-county area is approximately 975,000 people. Major manufacturing, commercial, and agricultural entities, dominated by automobile-related businesses, form a major part of the economy, which employs 460,000 people.

The vision of this study was forwarded to each county's Study Review Committee and the public for comment and stated the following:

- A major regional intermodal freight system serving trucks, trains, planes and ships with seamless interaction among all modes.

- Overseen by an intermodal commission, the region will offer transportation assets supported by state-of-the-art intelligent transportation system (ITS) technologies.

- This intermodal system provides a competitive advantage for commodity flow; creates a new dimension in the region's economy; and, improves the quality of life for the region's citizens.

While Bay County is not directly included in this study, due to the inclusion of the Saginaw County (MBS) airport, and the Bay County deep water ports the unfolding of this study could impact transportation issues and ultimately the financial health of the Bay City area.

A similar study focused on the three counties of the Great Lakes Bay Region (Bay, Midland, and Saginaw) might provide insight on how to capitalized on our existing transportation infrastructure to the region's best economic advantage.

Non-Motorized Transportation

The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) planning and funding guidelines have encouraged development of bicycle and other non-motorized transportation facilities.

Accommodating Bicycle and Pedestrian Travel: Recommended Approach is a policy statement adopted by the United States Department of Transportation. USDOT hopes that public agencies, professional associations, advocacy groups, and others adopt this approach as a way of committing themselves to integrating bicycling and walking into the transportation mainstream.

The Design Guidance incorporates three key principles:

a) A policy statement that **bicycling and walking facilities will be incorporated into all transportation projects** unless exceptional circumstances exits;

b) An approach to achieving this policy that has already worked in State and local agencies; and

c) A series of action items that a public agency, professional association, or advocacy group can take to achieve the overriding goal of improving conditions for bicycling and walking.

Existing Non-Motorized Facilities

Sidewalks
In Bay City and Essexville, more than 90% of the roads have sidewalks on at least one side of the road. In the townships, more than 90% of the roads lack sidewalks, including those in subdivisions. Of the townships in BCATS, only Bangor Township has any ordinance requiring construction of sidewalks in new subdivisions and along strategic road corridors when an adjacent property undergoes major improvements or a new building is constructed. None of the townships in the BCATS have an ordinance pertaining to bicycle facilities and/or bicycle riders on the roadway.

Trails
In BCATS, there is more than 20 miles of non-motorized trails in three (3) separate areas, the Fraser Township Trail, the Hampton Township Nature Trail, and the Bay County Riverwalk and Railtrail.

The Fraser Township Trail utilizes 4 miles of the abandon rail line from north of Sherman Rd to south of Almeda Beach Rd and runs adjacent to the Nayanquing Point Wildlife Area.

The Hampton Township Nature Trail is a 2.5 mile crushed limestone path which connects the Finn Rd campground to Knight Rd and then continues west along the Saginaw Bay.

The Riverwalk and Railtrail is a 9.5 mile trail loop that connects both sides of the Saginaw River and runs through Bay City, Hampton Township, and Portsmouth Township. Connecting to the Railtrail Loop is the Bangor Extension which runs 7.5 miles from the Railtrail Loop at the Liberty Bridge and out to the Bay City State Recreation Area (BCSRA) where it connects to the 1.5 mile long Frank Anderson Nature Trail and the nature trails in the Tobico Marsh Wildlife Area.

On Road Bicycle Facilities

A limited, unconnected network of on-road bicycle facilities exists within BCATS. Portions of the Riverwalk/Railtrail do use on-road facilities which include paved shoulders and "Share the Road" signing on low volume residential streets. There are several other roadways in the townships that provide a minimum 4 foot paved shoulder. The Liberty Bridge has a 4 foot concrete infill on the metal grates of the bascule portion of the bridge. This portion of the road is striped to mark the vehicle lane, but not officially identified as a bike lane. Completed during the summer of 2010, a bike lane was added on Two Mile Road and concrete sidewalks on Kiesel Road near Christa McAuliffe Middle School. Beyond these examples, the on-road facilities consist of the existing network of low volume residential streets. There are no officially signed bicycle routes within BCATS.

Routes Currently in the Planning Phases

Planning efforts are ongoing to connect this non-motorized trail system to others trails in the region, such as a proposed connection between Delta Community College and Saginaw Valley State University along the M-84 Corridor and the Bay-Zilwaukee railway segment linking to the city of Zilwaukee in Saginaw County to the south. There are also proposed connections to trail systems developing in both Saginaw and Midland Counties. The following trail planning efforts portray the level of effort being expended in the BCATS study area, as well as, the greater Bay County area in regards to non-motorized transportation efforts.

BCATS adopted a Non-Motorized Transportation Plan in 2011. This plan identify recommended routes for on-road bicycle facilities and is intended to be a guide for the communities within and surrounding the BCATS on ways to provide for non-motorized transportation within their boundaries and to make bicycling a viable transportation alternative.

Plan Recommendations:

1. Incorporate non-motorized interests into the design of projects to ensure that as many streets and highways as possible can be safely shared by motorists and bicyclists, and identify specific routes that would act as connectors between existing non-motorized trails.

2. Improve bicycle facilities including: storage, shelters, comfort stations and automobile parking at trip ends for minor/major generators and transit hubs. Develop the width of paths, grading,

drainage, barriers, fixed lighting, landscaping and structures where appropriate to accommodate users of the facilities.

3. Support the development of recreational non-motorized routes.

4. Improve safety issues such as drainage grate replacement, improving rail crossings, re-striping and alternate routing.

5. Encourage police agencies to provide stricter enforcement of bicyclists who disregard the Uniform Vehicle Code.

6. Acquire rights-of-way for independent bikeway and walkway construction.

7. Install curb ramps on new or existing facilities.

8. Provide traffic control devices, including signs, pavement markings, signals, and signal actuation devices.

9. Promote access between non-motorized and other modes of transportation.

10. Improve connectivity to transit routes.


BCATS Existing
Non-Motorized Infrastructure
Legend
Bay County Main Trails
STATUS
Existing Non-Motorized Trails
Possible Future Trails and Connections
Roads with Paved Shoulders
State Trunklines
Primary Roads
Open Water
BCATS Cities and Townships
Non BCATS Townships
Miles
0 0.5 1 2 3 4 5 6

Intelligent Transportation Systems (ITS)

The BCATS planning process recognizes that ITS technologies must become an integral component of transportation plans and programs. BCATS will work toward the successful implementation of the objectives of the National ITS Plan.

The objective of The National Intelligent Transportation Systems Plan is to advance the safety, efficiency and security of the surface transportation system, provide increased access to transportation services and reduce fuel consumption and environmental impact.

The ITS Vision is to ensure that:
Future transportation systems will be managed and operated to provide seamless, end-to-end intermodal travel for passengers regardless of age, disability, or location, as well as efficient, seamless, end-to-end intermodal freight movement. Future transportation systems will be safe; customer oriented, performance driven, and institutionally innovative, enabled by information from a fully integrated spectrum of computing, communications, and sensor technologies. Public policy and private sector decision-makers will seize the opportunity to make ITS a vital driver in achieving the vision of the transportation system for the 21st century. Objectives include:

- An electronic information network that works in concert with the physical infrastructure to maximize the efficiency, safety and utility of the system, encourage modal integration and consumer choice, and provide quick response in times of national crises.

- Far fewer and less severe crashes for all types of vehicles and far faster response and recovery when crashes do occur.

- Information for operators and users of the transportation system to help contain congestion and increase the effective capacity of the system while reducing the need for new construction.

- Facilities, technology, and information that help reduce energy consumption and negative environmental impact.

The introduction of ITS technologies into the institutional and funding framework of surface transportation, the current and proposed transportation infrastructure and future vehicle development offers the opportunity to achieve an Integrated Network of Transportation Information that will facilitate:

- Availability of information to allow travel choices wherever and whenever desired without being limited by physical disability, age or location.

- Full coordination between bus and rail transit, railroads, highway and arterial systems and eliminating missed connections, confusion during detours and diversions due to emergency and weather conditions.

- Timely and accurate commercial vehicle and freight data shared electronically among authorized stakeholders to support safety, security, productivity, mobility and environmental goals.

An Integrated Network of Transportation Information will require:

- Forging new partnerships within the public sector, at all levels, and the private sector, in its broadest sense, including manufacturers, carriers, service providers and travelers in all modes.

- Research into traveler behavior and requirements, user response to new types of information and personal services, and the types and quality of data that will be most useful to travelers and that will affect their travel patterns and behavior.

- Reaching out to the public safety community to assure a high level of communication and interface to support emergency and disaster response.

Interim Guidance issued by the USDOT:
The final rule and FTA policy on Intelligent Transportation Systems (ITS) Architecture and Standards were issued on January 8, 2001, to implement section 5206(e) of the Transportation Equity Act for the 21st Century (TEA-21). This final rule/policy requires that ITS projects funded by the Highway Trust Fund and the Mass Transit Account conform to the National ITS Architecture, as well as to USDOT adopted ITS Standards.

The final rule/policy means that: Regions currently implementing ITS projects must have a regional ITS architecture in place in four years. Regions not currently implementing ITS projects must develop a regional ITS architecture within four years from the date their first ITS project advances to final designs.

ITS projects funded by the Highway Trust Fund and the Mass Transit Account must conform to a regional ITS architecture. Major ITS projects should move forward based on a project level architecture that clearly reflects consistency with the National ITS architecture.

The Michigan Department of Transportation has completed a regional ITS architecture and deployment plans for the Bay Region in January of 2008. The document is available at http://www.michigan.gov/documents/mdot/Bay_Region_ITS_Architecture_271327_7.pdf.